

# 2020 Census Systems Readiness

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Census Enterprise Data Collection and Processing

# 2020 Census Systems Readiness

## Agenda

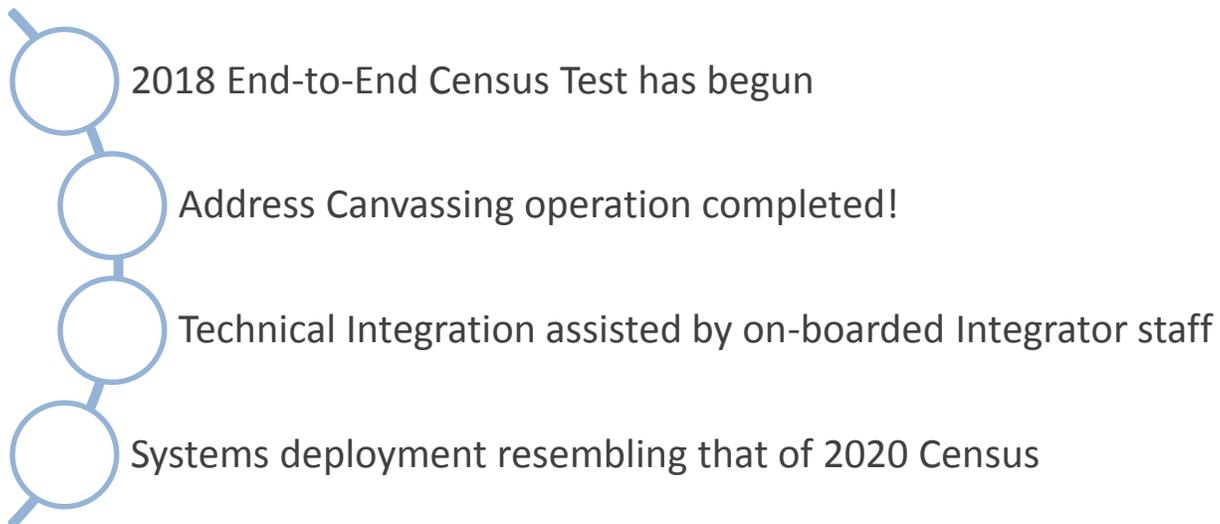
2018 End-to-End Census Test Systems Readiness

2020 Census Systems Readiness

Update on Census Enterprise Data Collection and Processing (CEDCaP) Systems

# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Systems Readiness

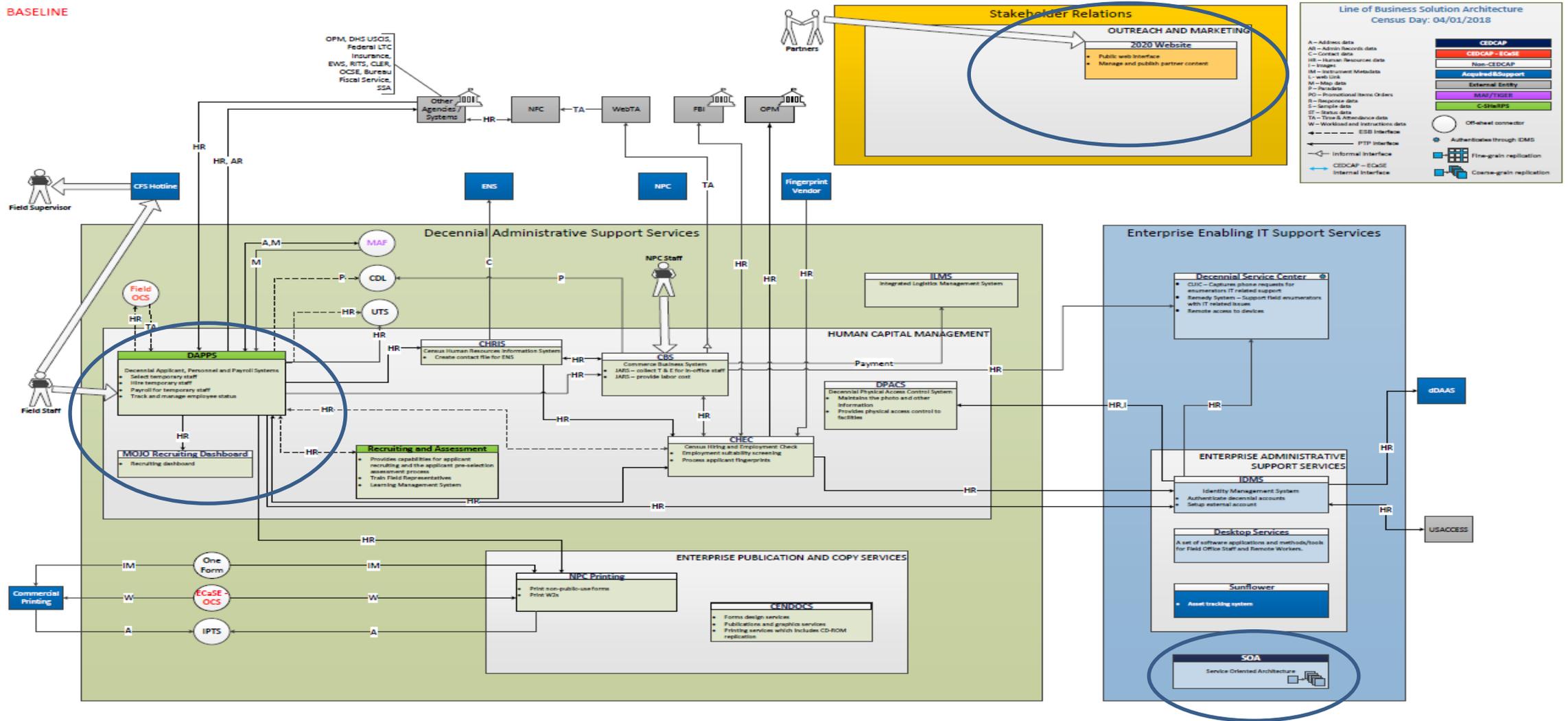




# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Solution Architecture (continued)

BASELINE



# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Systems

System	Key Efforts/Updates required for 2018/2020
<b>CDL</b> (Census Data Lake)	Capabilities for the 2018 End-to-End Census Test in progress.
<b>CEДСCI</b> (Center for Enterprise Dissemination Services and Consumer Innovation)	Capabilities for the 2018 End-to-End Census Test in progress.
<b>CQA</b> (Census Questionnaire Assistance)	Call center functionality successfully used in production for the first time during the 2017 Census Test. Developing enhancements for the 2018 End-to-End Census Test. Scalability updates are required to support 2020 Census.
<b>DRPS</b> (Decennial Response Processing System)	Successfully used in the 2017 Census Test. Enhancements in support of response processing operation for the 2018 End-to-End Census Test in progress. Scalability updates are required to support 2020 Census.
<b>Fraud Detection System</b>	Under development for the 2018 End-to-End Census Test.
<b>IPTS</b> (Intelligent Postal Tracking System)	Implementing enhancements for the 2018 End-to-End Census Test.
<b>PEARSIS</b> (Production Environment for Administrative Records Staging, Integration and Storage)	Implementing enhancements for the 2018 End-to-End Census Test.
<b>Tabulation</b> (Decennial Tabulation System)	Capabilities for the 2018 End-to-End Census Test in progress.

# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Support Systems

System	Key Efforts/Updates required for 2018/2020
<b>CBS</b> (Commerce Business System)	As-Is system in production. Some updates may be required when interfacing systems (such as DAPPS) migrate to the 2020 data center and/or cloud.
<b>CENDOCS</b> (Census Document System)	As-Is system in production, no functionality updates are required for its 2018/2020 baseline scope.
<b>CHEC</b> (Census Hiring and Employment Check System)	Enhancements to support 2018 End-to-End Census Test in progress. Third party vendor interface needs to be implemented once the fingerprinting contract is awarded. Scalability updates are required to support 2020 Census.
<b>CHRIS</b> (Census Human Resources Information System)	In production. Some updates may be required when interfacing systems (such as DAPPS) migrate to the 2020 data center and/or cloud.
<b>CIRA</b> (Census Image Retrieval Application)	Enhancements to support 2018 End-to-End Census Test in progress. Scalability updates are required to support 2020 Census.
<b>Decennial Service Center</b>	In production for the 2018 End-to-End Census Test.
<b>Desktop Services</b>	In production for the 2018 End-to-End Census Test.

# 2020 Census Systems Readiness

## 2018 End-to-End Census Test Support Systems (continued)

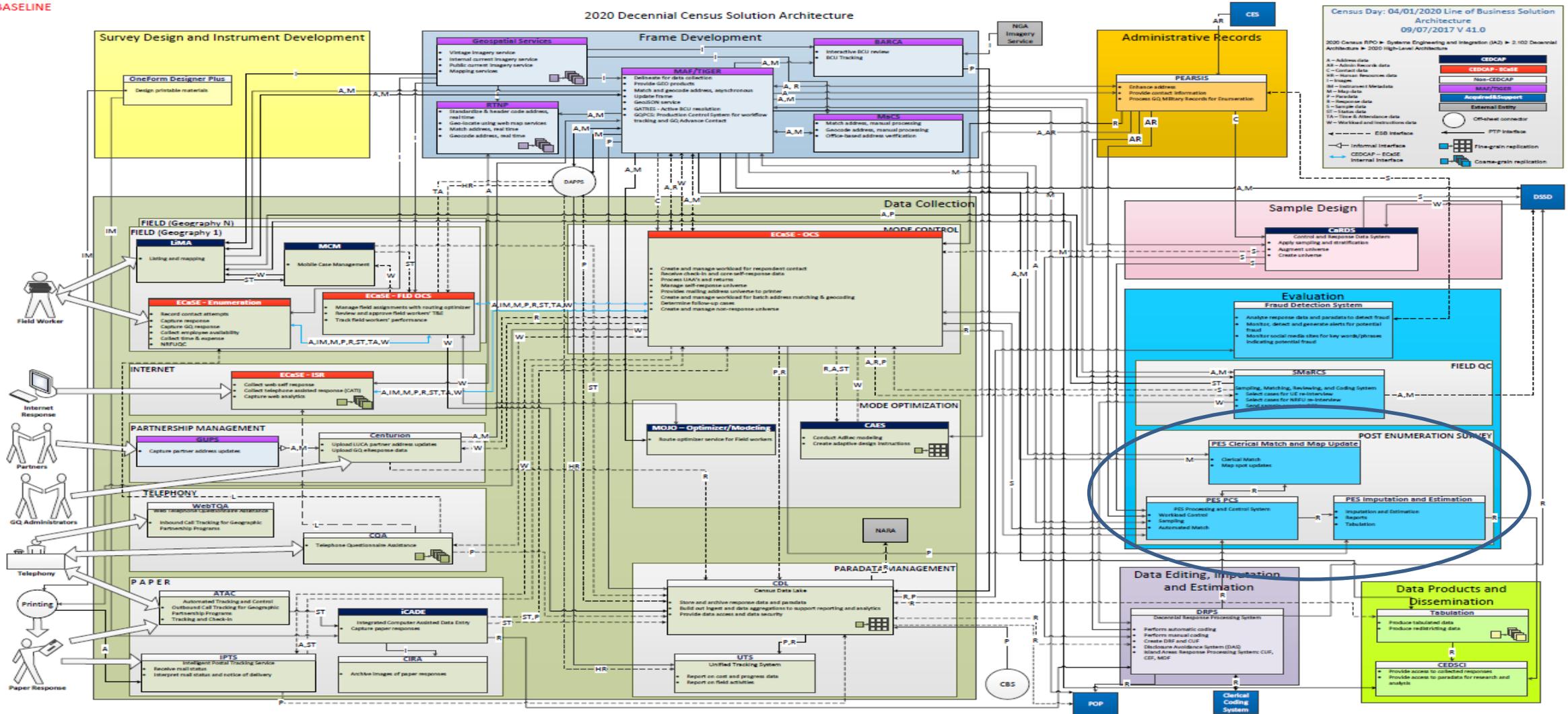
System	Key Efforts/Updates required for 2018/2020
<b>IDMS</b> (Identity Management System)	Enhancements for the 2018 End-to-End Census Test in progress. Integrate with 2020 data center/cloud environment. Scalability updates are required to support 2020 Census.
<b>ILMS</b> (Integrated Logistics Management System)	As-is system to support 2018 End-to-End Census Test. Possible scalability updates are required to support 2020 Census.
<b>NPC Printing</b> (Printing at the National Processing Center)	As-Is system, no functionality updates are required for its 2018/2020 baseline scope.
<b>Sunflower</b>	As-Is system, no functionality updates are required for its 2018/2020 baseline scope.

# 2020 Census Systems Readiness

## 2020 Census Solution Architecture

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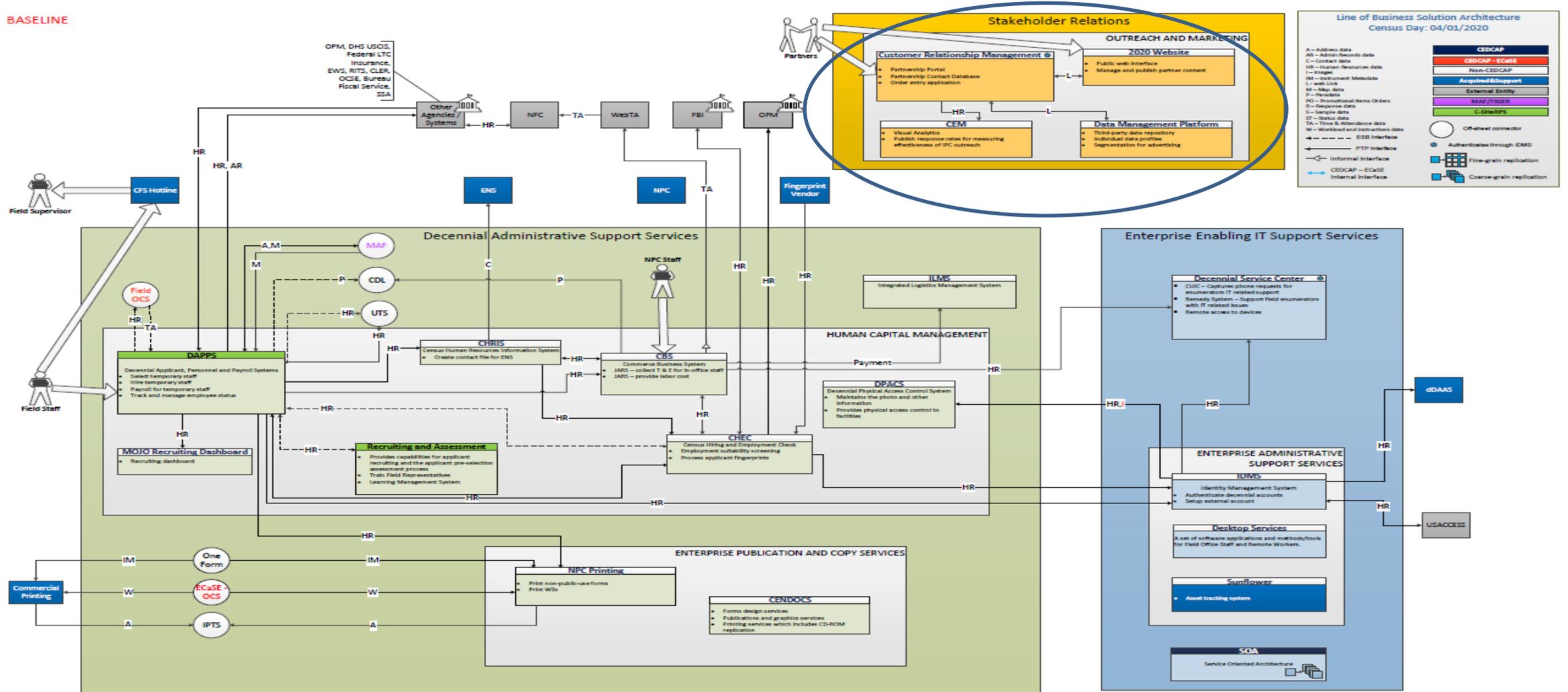
2020 Decennial Census Solution Architecture



# 2020 Census Systems Readiness

## 2020 Census Solution Architecture (continued)

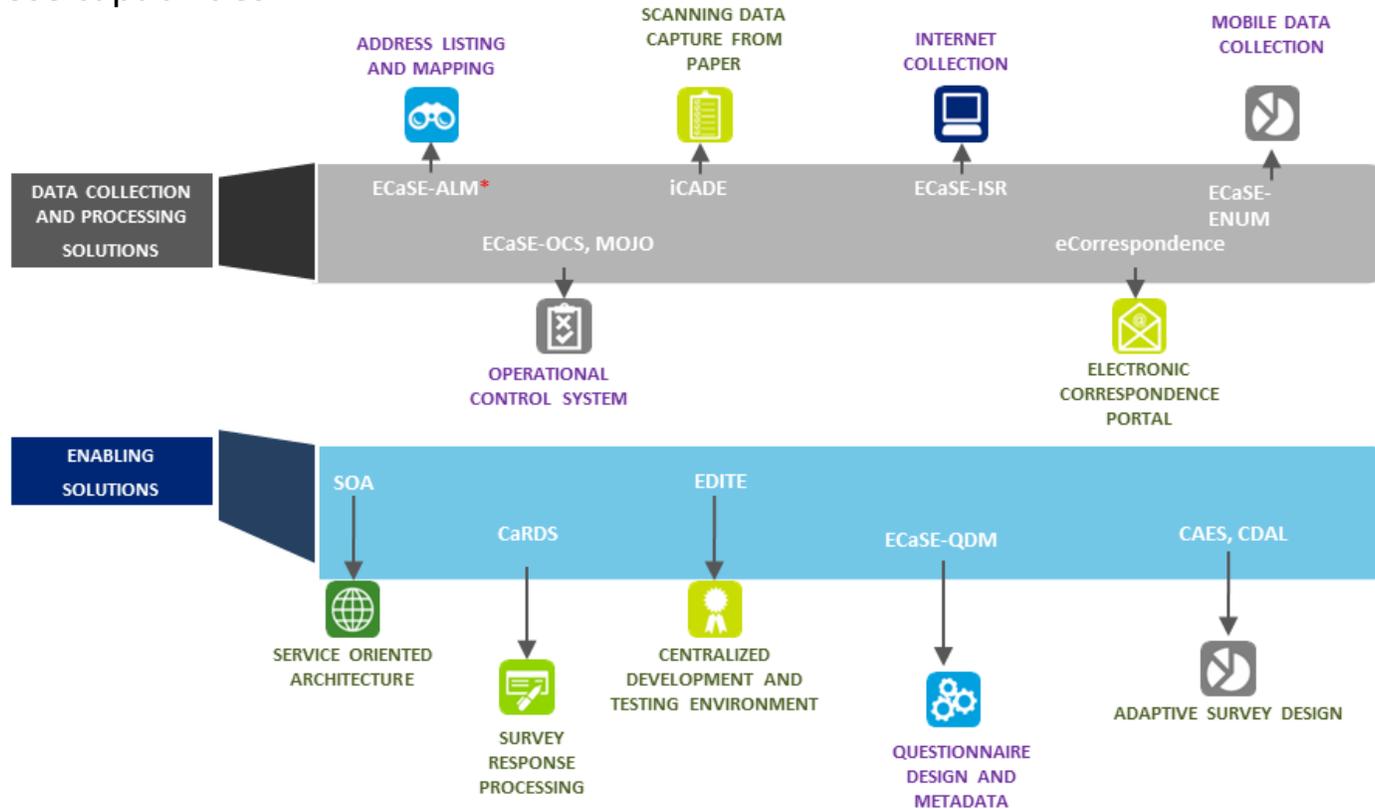
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# 2020 Census Systems Readiness

## Census Enterprise Data Collection and Processing (CEDCaP) Capabilities and Solutions

CEDCaP is comprised of delivery of enterprise capabilities and the solutions to provide those capabilities.



Capabilities shown in purple will be provided by the Enterprise Censuses and Surveys Enabling (ECaSE) Platform

\* The long term enterprise solution for Address Listing and Mapping is expected to be ECASE; however, for the 2020 product releases the current enterprise solution (LiMA) will be used.

### Census Enterprise Data Collection & Processing (CEDCaP)

CEDCaP Data Collection & Processing Capabilities and Solutions	
Delivered:	
CEDCaP Capability	CEDCaP Solution
1) Centralized Development and Testing Environment to CEDCaP projects	Enterprise Development, Integration, & Test Environment (EDITE)
2) Service Oriented Architecture for CEDCaP projects (Enterprise Service Bus (ESB), Manage File Transfer (MFT), Message Oriented Middleware (MOM), API Gateway)	Application Programming Interface (API) Infrastructure (API-I)
3 Adaptive Survey Design	ECaSE Operational Control System Census-Data Access Layer (C-DAL) Concurrent Analysis and Estimation System (CAES)
4) Operational Control System	ECaSE Operational Control System MOJO Optimizer/Modeling
5) Address Listing and Mapping	ECaSE Address Listing Mapping
6) Internet Data Collection	ECaSE Internet Self Response
7) Questionnaire Design and Metadata	ECaSE- Questionnaire Design Metadata
8) Mobile Data Collection	ECaSE – Enumeration
9) Electronic Correspondence Portal	eCorrespondence
10) Scanning Data Capture from Paper	Integrated Computer Assisted Data Entry (iCADE)
11) Survey Response Processing	CARDS (Pre-data collection, TBD (Post-data collection processing))

# 2020 Census Systems Readiness

## CEDCaP Systems

CEDCaP System	Key Efforts/Updates required for 2018/2020
<b>CaRDS</b> (Control and Response Data System)	System successfully supported the 2015, 2016, and 2017 Census Tests. Developing enhancements to support the 2018 End-to-End Census Test. Scalability updates are required to support 2020.
<b>iCADE</b> (Integrated Computer Assisted Data Entry System)	Legacy system that successfully supported the 2015, 2016 and the 2017 Census Tests. Developing enhancements needed for the 2018 End-to-End Census Test. Scalability updates are required to support 2020.
<b>SOA</b> (Service Oriented Architecture)	Used in production to successfully support the 2016 and 2017 Census Tests. For the 2017 Census Test, supported the interfaces between ECaSE in the Cloud and those systems not in the Cloud. Will be used in the Technical Integrator environments for the 2018 End-to-End Census Test and 2020 Census.
<b>ECaSE</b> (Enterprise Censuses and Surveys Enabling)	Internet Self-Response and Survey Operational Control functionality successfully used in production for the first time during the 2017 Census Test. Developing enhancements for the 2018 End-to-End Census Test. Scalability updates are required to support 2020. Work underway to address recommendation from May 2016 COTS Capability Assessment and Analysis decision to conduct performance testing. Testing will be done by Technical Integrator using 2020 workload models and solutions developed to 2018 End-to-End Census Test requirements.

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## CEDCaP Systems

CEDCaP System	Key Efforts/Updates required for 2018/2020
<b>CAES</b> (Concurrent Analysis and Estimation)	Models have supported previous census tests. First time use in the computing environment provided by TI in the 2018 End-to-End Census Test. Work will continue to finalize 2020 Census models that will run on CAES.
<b>MOJO Optimizer/Modeling</b> (Route Optimizer)	Successfully supported the 2015 and 2016 Census Tests. Developing enhancements needed for the 2018 End-to-End Census Test to apply business rules needed to reengineer field operations. Scalability updates are required to support 2020.
<b>LiMA/MCM</b> (Listing and Mapping/Mobile Case Management)	Legacy system in use on current surveys. Supported the 2016 Census Test. Developing enhancements needed for the 2018 End-to-End Census Test. Scalability updates are required to support 2020.

Questions?